

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings of claims in the Application.

1. (previously presented) An improved ceramic matrix composite laminate comprising:
a plurality of preform lamina, each of the preform lamina formed of directional continuous ceramic fiber in a ceramic matrix; and
an infiltrated compressed nonwoven mat including a nonwoven mat formed of a plurality of chopped ceramic fibers and a ceramic matrix, the nonwoven mat interposed and compressed between an interface of adjacent preform lamina so as to substantially remove the interface between the adjacent preform lamina.
2. (cancelled)
3. (previously presented) The ceramic matrix composite laminate of claim 2 wherein the nonwoven mat after being interposed and compressed between adjacent preform lamina of the at least two preform lamina is from about 0.001 inches to about 0.002 inches thick.
4. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the plurality of chopped ceramic fibers comprise of randomly oriented chopped fibers.
5. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the chopped ceramic fibers are less than about one inch in length.
6. (cancelled)
7. (cancelled)
8. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the nonwoven mat interposed between an interface of adjacent preform lamina reduces the number of inter-laminar voids.
9. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the nonwoven mat being interposed and compressed between adjacent preform lamina reduces the size of inter-laminar voids.

10. previously presented) The ceramic matrix composite laminate of claim 1 wherein the nonwoven mat being interposed and compressed between adjacent preform lamina reduces the volume fraction of inter-laminar voids.
11. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the nonwoven mat being interposed and compressed between adjacent preform lamina uniformly distributes the inter-laminar voids.
12. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the nonwoven mat has a porosity from about 50 percent to about 90 percent.
13. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the nonwoven mat has a porosity from about 80 percent to about 90 percent.
14. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the chopped ceramic fibers are from about 0.0004 inches to about 0.0008 inches in diameter.
15. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the chopped ceramic fibers are comprised of SiC.
16. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the ceramic matrix is comprised of SiC.
17. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the nonwoven mat is comprised of different ceramic fiber materials.
18. (previously presented) The ceramic matrix composite laminate of claim 1 wherein the nonwoven mat is comprised of a different material than the plurality of continuous fiber preform lamina.
19. (previously presented) The ceramic matrix composite laminate of claim 1 wherein a plurality of layers of the nonwoven mat is interposed between an interface of adjacent preform lamina.
20. (previously presented) The ceramic matrix composite laminate of claim 19 wherein at least one layer of the plurality of layers of the nonwoven mat comprises a different material than the remaining layers of the plurality of layers of the nonwoven mat.

21-27. (canceled)

28. (previously presented) An improved ceramic matrix composite laminate comprising:
a plurality of preform lamina, each preform lamina formed of directional continuous ceramic fiber in a ceramic matrix; and

an infiltrated nonwoven mat including a nonwoven mat formed of a plurality of randomly oriented chopped fibers and a ceramic matrix, the nonwoven mat being compressively interposed between an interface of adjacent preform lamina so as to substantially remove the interface between the adjacent perform lamina.

29. (previously presented) The ceramic matrix composite laminate of claim 28 wherein the plurality of randomly oriented chopped fibers are less than about one inch in length.

30. (previously presented) The ceramic matrix composite laminate of claim 28 wherein the plurality of randomly oriented chopped fibers are ceramic fibers.

31. (previously presented) The ceramic matrix composite laminate of claim 28 wherein the plurality of randomly oriented chopped fibers are a plurality of ceramic fiber compositions.